

MARKED UP VERSION

IN THE SPECIFICATION

Page 1, lines 16-24, the specification is amended as follows:

The MK 48 Torpedo utilizes a [Torpedo] torpedo Tail Mounted Dispenser (TMD) as an integral part of its guidance wire communication system. The function of the TMD is to house a guidance wire coil and allow for successful deployment of a hollow core flexible cable known as a flex-hose that is used to position the guidance wire that is paying out through it, below the submarine's keel and propeller. A prior art TMD is disclosed in U.S. Patent No. 5,385, 109, the contents of which are incorporated herein by reference.

Page 8, lines 10-24, the specification is amended as follows:

Other objects, features and advantages of the present invention will become apparent upon reference to the following description of the preferred embodiments and to the drawings, wherein corresponding reference characters indicate corresponding parts in the drawings and wherein:

FIG. 1 is a fragmented perspective view of a preferred embodiment of the dispenser of the present invention without the connecting mechanism for attachment to a torpedo;

FIG. 2 is a perspective front view of the dispenser shown in FIG. 1;

FIG. 3 is a front and side perspective view of the dispenser of FIG. 2 incorporating the bumper of the present invention;

FIG. 4 is a cutaway side elevational view of a torpedo in which the TMD assembly shown in FIG. 3 is engaged; and

FIG. 5 is an enlarged view of [the area 5 in] a portion of FIG. 4.

Page 9, line 2 through page 10, line 12, the specification is amended as follows:

Referring to FIGS. 1-2, a dispenser 10 includes receptacle 12, and a partitioning insert 14 for storing an elongated flexible hose 16 with an internal conductor or conductors as a multi-turn, multi-layer coil. The restraining bands 18 and 20 complete the dispenser 10. These components are mounted together coaxially about a deployment axis 22 that is generally horizontal in a submarine application. The receptacle 12 includes a cylindrical hub 24 that contains, within cylindrical wall 26 and an end wall 28, various mounting hardware for connection

to a torpedo. Base plate 30 extends radially from one end of the hub 24 to support a cylindrical shell 32 that is concentric with and spaced from the cylindrical wall 26. The partitioning insert 14 is molded or cast with an annular base 34 that attaches or butts the base plate 30. The partitioning insert 14 also includes four finger sets 36, 38, 40 and 42, perpendicular to and extending from base 34 in a direction parallel to axis 22 and spaced approximately 90° about axis 22. Each of the finger sets includes a radial[ly] inner finger 44, intermediate fingers 46 and 48 and a radial[ly] outer finger 50. Each finger has, for example, a base portion 52, an intermediate portion 54, and a free end 56. An arcuate extension 58 is positioned between the base portion 52 and a base portion of an adjacent finger. There are no extensions between finger sets 40 and 42 as this area constitutes a transition area 60 in which the flexible hose 16 can transfer smoothly between adjacent channels.

Page 10, line 13 through page 11, line 2, the specification is amended as follows:

The TMD 10 further includes a mechanical connector mechanism 104 secured to a shock mount 108 (not shown in FIG. 1) on its lateral peripheral surface. Elastomeric

lateral peripheral shock mount 108 is attached to hub 24. Referring now also to FIGS. 3-5, TMD 10 includes annular, elastomeric bumper 110 secured to a forward peripheral surface of shock mount 108 and having a central aperture 112 to permit exposure of ball-locking ring assembly 114. TMD 10 is connected to a torpedo 118 at bell mouth adapter 120 of torpedo 118, which connects to the ball-locking ring assembly 114 and mechanical connector mechanism 104 of TMD 10. Adjacent the bell mouth adapter 120 there is an exhaust valve 122 and the bell mouth adapter 120 connects to drive shaft 124 of torpedo 118. Outwardly adjacent the drive shaft 124 there is a shroud 126 that is positioned in opposed relation to the terminal front shock mount bumper 110.

Page 11, lines 3-19, the specification is amended as follows:

During certain shock and vibration levels, bumper 110 prevents the TMD locking mechanism from directly impacting shroud 126, so as to avoid the possibility of damage to shroud 126, which may render the locking/unlocking mechanism 104, 114 inoperable. The use of bumper 110 also avoids the possibility that torpedo 118 cannot be deployed because the TMD 10 cannot be unlocked and detached from torpedo 118. The elastomeric bumper 110 also minimizes displacement of

TMD 10 and absorbs energy created by the displacement of TMD 10, thus reducing damaging loads imparted to the torpedo. Additionally, it will be understood that bumper 110 is an extremely simple and easily implemented modification to prior art TMD 10 that produces exceptional results. Further, bumper 110 covers the locking mechanism 128 (as shown in FIG. [3] 4), inhibiting the locking mechanism 128 from impacting and damaging shroud 126 and preventing disengagement of locking mechanism 128 from locking ring assembly 114.

Page 16, lines 6-19, the specification was amended as follows:

A torpedo tail mounted dispenser (TMD) for deploying an elongated, flexible article generally along a deployment axis, which includes a receptacle for storing the article in a multiple-turn, multiple-layer configuration about the deployment axis in a storage volume. There is also a torpedo connector mechanism having a terminal forward face and a lateral peripheral surface extending away from the receptacle along the deployment axis. An elastomeric cushioning feature is mounted on the lateral peripheral surface of the connector mechanism. An annular elastomeric bumper is mounted on a forward peripheral face of the cushioning feature, the annular opening of the bumper

surrounding the connector mechanism to allow connection of the TMD to a torpedo. The bumper provides protection to the TMD and torpedo under certain shock and vibration levels.

IN THE CLAIMS

Claim 7 has been amended as follows:

7. (Amended) An assembly comprising:

a torpedo having a bell mouth adapter with a peripheral shroud at an aft end of the torpedo;

a receptacle for storing an elongated article in a multiple-turn, multiple-layer configuration about [the] a deployment axis in a storage volume;

a generally cylindrical connector extending from the receptacle and having a terminal front face and a lateral peripheral surface, there being a ball-locking ring assembly on said terminal front face and said ball-locking ring assembly is engaged with the bell mouth [connector] adapter of the torpedo;

a first elastomeric cushioning means mounted on the lateral peripheral surface of the connector; and

a second elastomeric cushioning means mounted on a front face of the first elastomeric cushioning means in outer axial relation to the ball-locking ring assembly and in opposed relation to the shroud on the torpedo.

REMARKS

Claims 1-8 are in the case. All claims have been allowed. Claim 7 has been objected to. No claim has been canceled and no new claim has been added, leaving only the objection and remedy to claim 7 remaining for consideration.

Examiner has noted several formal problems in the specification requiring correction, and further noted that references cited in the specification, but not provided in a separate paper, have not been considered by the examiner.

Enclosed herewith in an Information Disclosure Statement (IDS) listing those references which were mentioned in the specification, less those cited by Examiner. Copies of the references are provided, along with the IDS.

Examiner has objected to the drawings for failure to show reference character "5" mentioned on page 8, line 24 of the specification. An amendment has been made to page 8, line 24, which obviates the need for the reference character 5 in the drawings.

Examiner has further objected to FIG. 1 of the drawings for including a reference character (64) not mentioned in the specification. A proposed drawing correction in red ink is submitted herewith for Examiner's approval. The proposed correction constitutes the removal of reference character 64.

The specification has been objected to for identifying TMD as "Tail Mounted Dispenser" and as "Torpedo Mounted Dispenser". By amendment to page 1, last paragraph, "Torpedo Mounted Dispenser" has been changed to --Torpedo Tail Mounted Dispenser--. In the same vein, the Abstract has been amended to change in line 6 "torpedo mounted dispenser" to --torpedo tail mounted dispenser--.

In the course of reviewing the specification, other minor errors were noted which have been corrected hereinabove.

Claim 7 stands objected to for including "the bell mouth connector" when referring to a previously recited "bell mouth adapter". Claim 7 line 12, has been amended to recite --the bell mouth adapter-- instead of "the bell mouth connector".

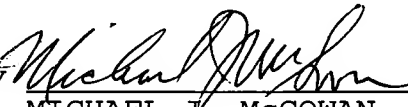
Accordingly, it is believed that the application is now in condition for allowance, which is most respectfully requested.

The Examiner is invited to phone Michael J. McGowan,
attorney for Applicant, 401-832-4736, if in **his/her** opinion
such phone call would serve to expedite the prosecution of
the subject patent application.

Respectfully submitted,

JAMES C. BUTTS et al

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By 
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